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EXAMINER	
GAMINO, CARLOS J	
ART UNIT	PAPER NUMBER
1793	
MAIL DATE	DELIVERY MODE
10/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,180	TEH, LIP	
	Examiner	Art Unit	
	CARLOS GAMINO	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/13/09 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-7 and 10-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tadateru et al. (JP 2002-172462).

Regarding claim 1, Tadateru teaches:

A method for welding a member and an end of a polygonal hollow section (PHS) to form a joint, the method comprising:

forming a connection weld [weld metal (30) or the root pass of weld metal (30)] connecting the end of the PHS and the member [square steel tube and diaphragm; paragraph 0034 and figures 1-4]; and

forming a second weld [cosmetic infill weld (31, 311)], the second weld extending continuously along the surface of the PHS from the connection weld to a location that is remote from the connection weld [One reading the applicant's submitted certified translation and abstract of Tadateru would appreciate that the length of the cosmetic infill weld (31) is not limited to 15mm but that the width of it is. If one were to assume, as the applicant's have, that the 15mm limit is the length of the weld then the overview of the welded joint would look like Figure A below (numbers correspond to Tadateru). The first problem with this assumption is that cosmetic weld (31) does not entirely cover weld (30) thus making it not very cosmetic. Second, weld (31) would more than likely lead to additional stress risers. Third, weld (31) would not prevent a crack from propagating in a portion of HAZ 1 that lies outside weld (31) which clearly Tadateru intends to prevent by adding weld (31); paragraphs 0013, 0014, 0016, 0022, 0025, 0029-0032. Lastly, one reading Tadateru would understand that the 15mm is not the length of weld (31) but the distance from toe (30A) to toe (31A) in figure B, the width of weld (31) in figure 2b or "A" in figure 3; see above noted paragraphs. For these reasons it is the examiners position that the weld (31) extends along the entire length of weld (30) (transversely across the surface of at least one flange).]

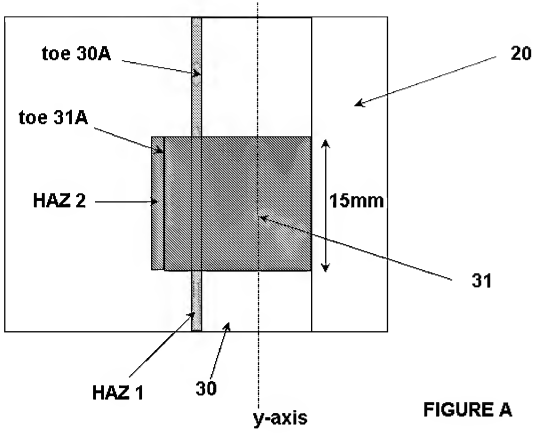

FIGURE A

Tadateru does not teach:

forming the second weld by applying a plurality of weld beads transversely across a surface of the PHS and

such that, when a bending moment is applied to the joint, a greatest longitudinal normal strain occurs adjacent the remote location.

Concerning the plurality of weld beads, the examiner notes that Tadateru does not state how the groove weld or the cosmetic weld are formed. However, one of ordinary skill in the art would know that there are several methods, SAW, GMAW, SMAW, etc., to form the weld beads to produce a welded joint. So for example, a typical GMAW weld bead width can range anywhere from 3mm to 12mm depending on

numerous variables: electrode size, power input, weld speed, technique, desired heat input, thickness of the material and so on. So, if a reasonable weld bead size of 5mm is used to make weld (31) at a width of 15mm (the distance of the weld from toe (30A) to toe (31A)), that would be three weld beads extending the length of the groove weld, two intermediate weld beads (b, c) and one spaced weld bead (a); see figure B below. The examiner notes that depending on which method, figure 1b, 2b or 3, of Tadateru one chooses, the cosmetic weld may vary in size; see figure B. However, width of individual beads can vary widely depending on the variables listed above. Thus, the method of joint design is very case dependent and the selection of specific welding parameters and weld bead widths is well within the purview of one of ordinary skill. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose welding parameters based on the materials being joined to create the second weld from a plurality of weld beads as shown in figure B.

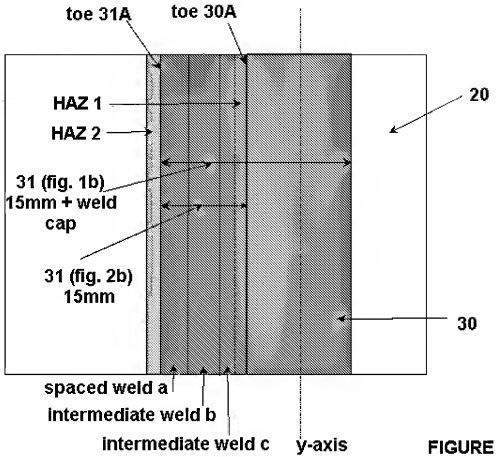

FIGURE B

Concerning the bending moment, the examiner notes that Tadateru does not create the cosmetic infill weld for the same purpose as claimed however, since the method steps of the prior art are identical to the claimed method it is the examiners position that the prior art also intrinsically achieves the same result.

Regarding claim 2, Tadateru does not specifically teach:

wherein the surface comprises one or more flanges of the polygonal hollow section (PHS).

However, Tadateru clearly states that a square tube, which has 4 flanges, is welded to a diaphragm; paragraph 0034 and figures 1-3. Therefore, the method is performed on the surface of at least one flange.

Regarding claim 3, Tadateru teaches:

wherein the polygonal hollow section (PHS) is at least one of a rectangular hollow section (RHS) and a square hollow section (SHS) [steel square tube],

but does not specifically teach the surface is a single flange of the PHS.

However, one of ordinary skill would appreciate that if Tadateru intends to weld the steel square tube to a diaphragm using the disclosed method at least one flange of the tube would be welded.

Regarding claim 4, Tadateru does not teach:

wherein the surface comprises at least one tensile flange of the polygonal hollow section (PHS).

The examiner notes that Tadateru does not limit the situations in which the disclosed method can be performed. Therefore, one reading this reference would appreciate that whether or not the a particular welded flange is in tension or not is not critical, therefore selection of a particular flange would have been within purview of one of ordinary skill in the art at the time of the invention absent any unexpected results. Furthermore, one would have been motivated to create the cosmetic weld of Tadateru on any groove weld in order to gain the advantages taught by Tadateru.

Regarding claim 6, Tadateru teaches:

wherein forming the connection weld comprises:

applying at least one connection weld bead across an edge of a flange of the polygonal hollow section (PHS) at the end thereof to connect the PHS to the member [see rejection 1 above]; and

wherein forming the second weld comprises:

applying a spaced weld bead transversely across the flange, wherein the spaced weld bead is spaced from the connection weld bead; and

applying one or more intermediate weld bead to the flange so as to extend the second weld continuously between the connection weld bead and the spaced weld bead [see figure B above and the arguments above pertaining to the creation of the spaced weld (a) and intermediate welds (b, c)].

Regarding claim 7, Tadateru teaches:

wherein the polygonal hollow section (PHS) is at least one of a rectangular hollow section (RHS) and a square hollow section (SHS) [steel square tube; paragraph 0034], and the flange is a tensile flange [see arguments above in claim 4] and the spaced and intermediate weld beads are transversely applied only across the tensile flange [see figure B].

Regarding claim 10, Tadateru teaches (see figure C below, individual weld beads added by examiner):

wherein an additional weld bead [weld pass (q or p)] is applied in a region defined between the member [diaphragm (20)], the connection weld [root pass (o) or the entire weld (30)] and the intermediate weld bead [intermediate pass (m or c)] immediately adjacent to the connection weld. For clarification pass (q) is between (m),

(o) and 20 and applies because a groove weld is typically welded in multiple passes as shown below in figure C. An alternative interpretation is that pass (p) is between (c), (20) and (30).

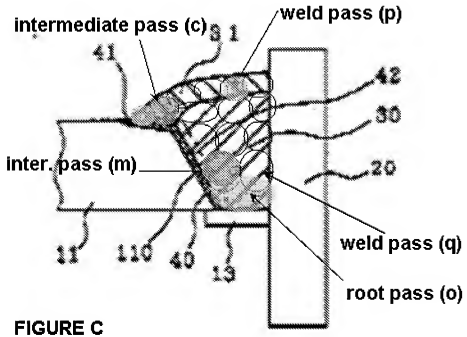

FIGURE C

Regarding claims 11 and 14, Tadateru does not teach:

wherein the flange has a flange thickness and the additional weld bead has a thickness that is at least 0.5 times the flange thickness or the one or more intermediate weld beads each have a thickness that is in the range of 0.3 to 0.6 times the flange thickness.

However, Tadateru does limit the thickness of the weld (31) to not less than 0.1t (where t is the thickness of the member possessing the groove). In the specification the applicant states that the tube thickness is 4-5 mm. One of ordinary skill in the art at the time of the invention would know that with the applicant's disclosed weld bead thickness

of 2-3mm is typical of several welding processes and that the amount of weld that can be deposited in a single pass is determined by numerous variables. This is a matter of joint design and the maximum thickness of a weld bead can be determined by variables such as the thickness of the material being welded, the heat input, the process being used, desired microstructure or others. Therefore, if the method of Tadateru were to be performed on 4-5 mm tubular members to decrease the weldment's cracking susceptibility it would have been obvious to one of ordinary skill in the art of joint design at the time of the invention to have used a weld with a thickness of 2-3 mm or thicker to speed up the welding process but to limit the thickness of the weld beads to avoid defects from oversized weld beads such as burn through. Additionally, reading Tadateru reference would appreciate that the thickness of the weld bead is not critical as long as it is above 0.1t, therefore selection of a particular weld bead thickness would have been within purview of one of ordinary skill in the art at the time of the invention absent any unexpected results. Furthermore, the examiner would like the applicant to point out where in the specification the limitations of claims 11 and 14 are addressed.

Regarding claim 12, Tadateru teaches:

wherein the connection weld is formed around a peripheral end of the polygonal hollow section (PHS) to fully connect the end to the member.

Tadateru does state that the steel square tube is butt welded to a diaphragm; paragraph 0034. Therefore, it is the examiners position that any of the welds in figures 1-3 used to join the tube and diaphragm would be "fully" connected.

Additionally, whether or not the one welds the entire circumference of a tube to a diaphragm is not a matter of invention but design. One would be motivated to weld the entire circumference of the tube to the diaphragm for increased strength or to seal the tube and conversely, one would be motivated to not weld the entire circumference if the additional strength gained is not needed thus saving money.

Regarding claim 12, Tadateru teaches:

wherein the second weld has a width ranging from 10 to 30 mm [see rejection of claim 1 and figure B]. Additionally, Tadateru does teach that the width can be more but discourages it because of welding costs; paragraph 0030.

Regarding claim 15, Tadateru teaches:

wherein the member is at least one of another polygonal hollow section (PHS), a supporting plate [diaphragm; paragraph 0034], a stiffening plate, a connecting plate, a base plate and a top plate.

Regarding claim 16, Tadateru does not specifically teach:

the polygonal hollow section (PHS) and the member define the joint about which the bending moment can be applied, as a result of a load applied to at least one of the PHS, the member, and both the PHS and the member.

However, the examiner notes a bending moment "can be" applied to any joint which then intrinsically transfers the stress to both members. Therefore, the joint of Tadateru meets this limitation.

Regarding claim 17, Tadateru does not specifically teach:

A method for increasing the rotation capacity in a welded moment connection between a polygonal hollow section (PHS) and a member, the method comprising:

applying multiple weld beads transversely across a surface of the PHS in a manner such that strain in at least one comer, located at an end of the PHS that is weld connected to the member, is redistributed to a flange that is adjacent to the at least one comer of the PHS.

However, as noted above in the rejection of claim 1, the prior art does apply multiple weld beads transversely across the surface of the steel square tube; figure B. Therefore, since the steps required to achieve the desired redistribution of strain are meet by the prior art, it is the examiner's position that prior art also achieves the desired distribution of strain.

Regarding claim 18, Tadateru does not specifically teach:

A method for increasing the rotation capacity in a welded moment connection between a polygonal hollow section (PHS) and a member, the method comprising:

applying multiple weld beads transversely across a surface of the PHS in a manner that minimizes the extent to which a heat affected zone through a flange of the PHS lies in a fracture zone adjacent to the weld.

However, as noted above in the rejection of claim 1, the prior art does apply multiple weld beads transversely across the surface of the steel square tube; figure B. Therefore, since the steps required to minimize the extent of the HAZ are meet by Prior art, it is the examiner's position that prior art also achieves the desired distribution of strain.

Regarding claims 19 and 20, Tadateru teaches:

wherein the polygonal hollow section (PHS) is formed from steel having reduced elongation at fracture when compared to a corresponding hot-formed steel section or that the steel is cold-formed and is susceptible to fracture in a heat affected zone adjacent to where the polygonal hollow section (PHS) is joined to the member.

Tadateru refers to the problem of welding cold-formed steel and proposes a solution to this; paragraphs 0007 and 0009. Therefore, Tadateru clearly intends to use the disclosed method on cold-formed steel square tubes.

Regarding claim 21, Tadateru does not teach:

wherein a first intermediate weld bead is applied to the flange adjacent to the connection weld bead and

each successive intermediate weld bead is applied adjacent a previous intermediate weld bead so as to extend the second weld continuously between the connection weld bead and a final intermediate weld bead, the final intermediate weld bead constituting the spaced weld bead.

As noted above in the rejection of claims 1 and 6, making the second welding bead from multiple welds would have been obvious to one of ordinary skill in the art. The limitations of the current claim deal with the order in which they are laid. In this case, looking at figure B the beads would have to be laid from right to left in order to meet this claim. It would have been obvious to one of ordinary skill in the art at the time of the invention to lay the beads from right to left because this requires very limited

planning and it is much easier to lay beads in this order due to the fact that the previously laid bead can be used a guide for then next.

4. **Claims 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tadateru et al. (JP2002172462) in further view of Linnert (Welding Metallurgy).

Regarding claim 8, Tadateru does not teach:

wherein a first intermediate weld bead is applied to the flange adjacent to the spaced weld bead and each successive intermediate weld bead is applied adjacent a previous intermediate weld bead so as to extend the second weld continuously between the spaced weld bead and the connection weld bead.

Linnert teaches that in a multipass weld each weld bead tempers the previous weld bead and HAZ and that this tempering makes the weld bead and HAZ tougher; pg. 886-887.

So it is not unexpected that the backward welding technique is better because the spaced weld in this case would be tempered. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to place the spaced weld bead first so that it would be tempered which would reduce the susceptibility of that weld to cracking.

Regarding claim 9, Tadateru teaches:

wherein the polygonal hollow section (PHS) is at least one of a rectangular hollow section (RHS) and a square hollow section (SHS) [steel square tube; paragraph 0034],

but does not teach:

wherein, after forming the connection weld between the PHS and the member, the spaced weld bead is applied, and then two or more intermediate weld beads are applied in succession between the spaced weld bead and the connection weld, starting with a the first intermediate weld bead adjacent to the spaced weld bead.

Linnert teaches that in a multipass weld each weld bead tempers the previous weld bead and HAZ and that this tempering makes the weld bead and HAZ tougher; pg. 886-887.

So it is not unexpected that the backward welding technique is better because the spaced weld in this case would be tempered. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to place the spaced weld bead first so that it would be tempered which would reduce the susceptibility of that weld to cracking.

5. **Claims 1-4, 6, 7 and 10-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over AWS Welding Handbook; pages 174-182.

Regarding claims 1, 6, 17 and 18,

AWS teaches the following weld joint for joining tubular members, including PHS. The examiner added the individual weld beads to 5.45 to illustrate the arguments below.

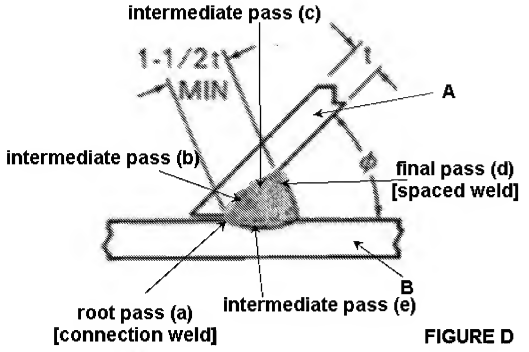

FIGURE D

This type of weld joint is well known in the art and the number of weld beads required to the desired strength are equally well known in the art. Let's assume that someone wants to weld A and B, which are PHS members, together and A and B have 15mm thick walls. Therefore, using the above equation the total width of the weld needs to be at least 22.5mm. For the sake of simplicity, the designer chooses to use GMAW to produce individual beads of 5-6mm in width the entire length of the joint [transversely across the flange of the PHS]. Doing so would create the above cross sectional weld bead profile. Such a profile has a connection weld and a plurality of additional weld beads that can be considered a second weld. The second weld then has a spaced weld bead (d) and two intermediate weld beads (b, c) (obviously there could be more).

As the claims are written they do not exclude this type of joint from reading on the claims and since this type of weld reads on the claims it is the examiner's position that this joint also achieves the claimed affects.

Regarding claims 2, 3, 4 and 7,

The PHS above has four flanges and choosing whether or not to weld only one or all four is not invention but simple mechanics based on the applied stresses and strains or aesthetics. Additionally, it is well known in the art that such tubular members are commonly used in situations in which they do experience compressive and tensile forces.

Regarding claim 10,

Pass (e) meets this requirement.

Regarding claims 11 and 14,

The examiner notes that the weld beads do not have to be 5-6mm in order to properly weld the above components. It would have been obvious to one of ordinary skill in the art at the time of the invention that the size could vary. One would have been motivated to use larger weld beads in order to increase production time or to use smaller weld beads to limit the amount of heat input. The size of the weld is not critical and there is much leeway, therefore selection of a particular weld bead size would have been within purview of one of ordinary skill in the art at the time of the invention absent any unexpected results.

Regarding claim 12,

Creating the above welds would fully connect the members.

Regarding claim 13,

Using the above numbers the second weld would be 15-18mm.

Regarding claim 15,

As noted above, B is a PHS. Additionally, it would have been obvious to one of ordinary skill in the art at the time of the invention that B could be any structural member.

Regarding claim 16,

The examiner notes a bending moment "can be" applied to any joint which then intrinsically transfers the stress to both members.

Regarding claims 19 and 20,

It would have been obvious to one of ordinary skill in the art at the time of the invention that the above joint design is typical to the welding of PHS members and would have expected the weld to function on any type of steel tube regardless if it was cold formed or not.

Regarding claim 21,

In order to complete the above welded joint it is intrinsic that (a) is done before (b) which is done before (c) which is done before (d).

Response to Arguments

6. Applicant's arguments filed 9/15/09 have been fully considered but they are not persuasive.

7. The applicant argues that Tadateru does not disclose applying the cosmetic weld (31) along the length of the groove weld (30) for no more than 15mm or in other words the weld does not extend parallel to the y-axis, figure A, for no more than 15mm. As noted above, one reading the applicant's submitted certified translation and abstract of Tadateru would appreciate that the length of the cosmetic infill weld (31) is not limited to 15mm but that the width of it is. If one were to assume, as the applicant's have, that the 15mm limit is the length of the weld then the overview of the welded joint would look like Figure A above (numbers correspond to Tadateru). The first problem with this assumption is that cosmetic weld (31) does not entirely cover weld (30) thus making it not very cosmetic. Second, weld (31) would more than likely lead to additional stress risers. Third, weld (31) would not prevent a crack from propagating in a portion of HAZ 1 that lies outside weld (31) which clearly Tadateru intends to prevent by adding weld (31); paragraphs 0013, 0014, 0016, 0022, 0025, 0029-0032. Lastly, one reading Tadateru would understand that the 15mm is not the length of weld (31) but the distance from toe (30A) to toe (31A) in figure B, the width of weld (31) in figure 2b or "A" in figure 3; see above noted paragraphs. For these reasons it is the examiners position that the weld (31) extends along the entire length of weld (30).

8. The applicant argues that Tadateru's "purpose is not to redistribute strain away from the corners of the PHS, but instead to strengthen the groove weld." The examiner agrees that Tadateru does not perform the cosmetic weld for this purpose but since the claimed steps are meet by the prior art it is the examiner's position that the prior art also achieves the claimed effects. Additionally, the applicant has not provided any evidence

as to why the method of the prior art would not achieve the claimed effects. The applicant has simply stated that Tadateru does not teach the claimed effects but this does not mean that they are not intrinsic to the prior art method.

9. The Affidavit under 37 CFR 1.132 filed 09/15/09 is insufficient to overcome the rejection of all claims based upon Tadateru as set forth in the last Office action because:

- 6a. This statement is insufficient because it does not state if the 15mm is the width or length of the cosmetic weld. Additionally, as noted above the 15mm is the width of the weld.
- 6b. The cosmetic weld is not for covering or hiding cracks, it is for preventing and controlling the propagation of cracks; paragraphs 0013-0014 and abstract. Additionally, Hancock's statement in 6c contradicts this statement.
- 6c. This is simply a statement without any argument.
- 6d. As noted above, one reading Tadateru would understand that the cosmetic weld (second weld) extends back along the structural member.
- 6e. This statement is not commensurate with the scope of claim 1 and is merely an allegation without factual support and based on an incorrect assumption (which is discussed below).
- 7. The examiner questions the use of unexpected discovery because why would one not expect the strength of a welded joint to increase if additional material, in this case weld buildup, is applied to the weakest link or in other words if one increases the thickness of the weakest link why would it not be stronger?

Hancock argues that Tadateru does not teach applying a plurality of beads across the surface of the PHS. The examiner agrees but uses well known welding joint design knowledge to show that the forming the cosmetic weld of Tadateru from multiple passes would have been well within one's purview of joint design.

- 8. Hancock's reasoning for Tadateru's failures is based on his assumption that the cosmetic weld does not extend in the same direction, y-axis, as the groove weld. As noted above, the examiner disagrees with this assumption. Since Hancock's interpretation of Tadateru is incorrect any reasoning derived from this is also incorrect. Lastly, since the prior art's cosmetic weld is also structural, extends along the groove weld, is formed from a plurality of weld beads and has a width within the claimed range why would it not achieve the desired results?

Conclusion

10. The applicant is **strongly encouraged** to set up an interview with the examiner prior to filing a response to this office action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARLOS GAMINO whose telephone number is (571) 270-5826. The examiner can normally be reached on Monday-Thursday, 9:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica L. Ward can be reached on (571) 272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CG

/Jessica L. Ward/
Supervisory Patent Examiner, Art Unit 1793